

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method comprising:

causing data of a first type to be stored in a first level of a unified memory device and data of a second type to be stored in a second level of the unified memory device;

causing a logical memory management boundary to be disposed between the first level and the second level;

causing data fragments to be stored in respectively ascending positions in the first level by application of a fragmented store algorithm; and

causing data units to be stored in respectively ascending positions in the second level.

Claim 2 (original): A method as defined in Claim 1, wherein the data of a first type is persistent data and the data of a second type is dynamic data.

Claims 3-8 (cancel)

Claim 9 (currently amended): An apparatus comprising:

a first level to store persistent data including a plurality of data fragments and a plurality of unit headers, each of the unit headers to be associated with a respective one of the plurality of data fragments;

a second level to store dynamic data including a plurality of object pointers and a plurality of data units, each of the object pointers to be associated with a respective one of the plurality of data units; and

a memory management boundary disposed between the first level and the second level, and wherein the first level is to comprise, in respectively descending order with respect to the memory management boundary:

a sequence table;

a first data fragment; and

a first unit header.

Claims 10-11 (cancel)

Claim 12 (currently amended): An apparatus as defined in Claim [[11]] 9, wherein the memory management boundary is logically fixed.

Claim 13 (original): An apparatus as defined in Claim 12, wherein the first level comprises an unused area between a data fragment segment and a sequence table and the second level comprises an unused area between an object pointer and a data unit segment.

Claim 14 (currently amended): An apparatus as defined in Claim [[11]] 9, wherein the memory management boundary is logically configurable.

Claim 15 (original): An apparatus as defined in Claim 14, further comprising an unused area between a sequence table in the first level and a data unit in the second level.

Claim 16 (currently amended): An apparatus as defined in Claim 15, wherein object pointers and respective associated data units are to occupy alternatively descending positions in the second level.

Claim 17 (cancel)

Claim 18 (currently amended): A machine readable storage article as defined in ~~Claim 17 further comprising~~ instructions that, if executed, enable ~~the~~ a system to:

store a plurality of persistent data fragments in ~~the~~ a first memory level of a unified memory device;

store a plurality of unit headers in the first memory level, each of the unit headers being associated with a respective one of the plurality of persistent data fragments and including information to identify a source of the respective persistent data fragment;

store a plurality of sequence tables in the first memory level;

store a plurality of dynamic data units in ~~the~~ a second memory level of the unified memory device; and

store a plurality of object pointers in the second memory level, each of the object pointers associated with a respective one of the dynamic data units.

Claim 19 (cancel)

Claim 20 (currently amended): A machine readable storage article as defined in Claim [[19]] 18 further comprising instructions that, if executed, enable the system to:

cause data fragments to occupy ascending segments positions in the first memory level;

cause sequence tables to occupy descending segments positions in the first memory level;

cause object pointers to occupy descending segments positions in the second memory level; and

cause data units to occupy ascending segments positions in the second memory level.

Claim 21 (currently amended): A machine readable storage article as defined in Claim 20 further comprising instructions that, if executed, enable the system to:

cause data fragments and unit headers to occupy respectively alternating positions in the first memory level;

cause sequence tables to occupy contiguous positions in the first memory level;

cause object pointers to occupy contiguous positions in the second memory level; and

cause data units to occupy contiguous positions in the second memory level.

Claim 22 (original): A machine readable storage article as defined in Claim 18 further comprising instructions that, if executed, enable the system to:

cause data fragments to occupy ascending positions in the first memory level;

cause sequence tables to occupy descending positions in the first memory level;

cause object pointers to occupy descending positions in the second memory level; and

cause data units to occupy ascending positions in the second memory level.

Claim 23 (original): A machine readable storage article as defined in Claim 18 further comprising instructions that, if executed, enable the system to:

cause data fragments and unit headers to occupy respectively alternating positions in the first memory level;

cause sequence tables to occupy contiguous positions in the first memory level; and

cause object pointers and data units to occupy respectively alternating positions in the second memory level.

Claim 24 (currently amended): A system comprising:
a storage device to store instructions that, if executed, ~~are effective~~ enable the system to:
store persistent data in a first level of a unified memory device, the persistent data comprising a plurality of data fragments;
store dynamic data in a second level of the unified memory device, the dynamic data comprising a plurality of data units; and
store a plurality of unit headers in the first level, wherein each unit header is associated with a data fragment and a data unit; and
an antenna coupled to the storage device.

Claim 25-26 (cancel)

Claim 27 (currently amended) A system as defined in Claim [[26]] 24, further comprising instructions that, if executed, ~~are effective~~ enable the system to:
store at least one sequence table in the first level, the sequence table to link data fragments.

Claim 28 (currently amended): A system as defined in Claim 27, further comprising instructions that, if executed, ~~are effective~~ enable the system to:
store a plurality of object pointers in the second level, each object pointer being associated with a respective one of the data units.

Claim 29 (currently amended): A system as defined in Claim 28, further comprising instructions that, if executed, ~~are effective~~ enable the system to store data units in the second ~~memory~~ level in contiguous memory segments that ascend from a logically fixed memory management boundary.

Claim 30 (currently amended): A system as defined in Claim 28, further comprising instructions that, if executed, ~~are effective~~ enable the system to establish a configurable memory management boundary between the first level and the second level.

Claim 31 (new): A method as defined in Claim 1, further comprising first storing an application in the second level and later storing the application in the first level.

Claim 32 (new): A method as defined in Claim 31, further comprising deconstructing the application into a plurality of data fragments using the fragmented store algorithm.

Claim 33 (new): A method as defined in Claim 1, further comprising storing unit headers between the data fragments.

Claim 34 (new): A method as defined in Claim 1, further comprising storing at least one sequence table in the first level, the at least one sequence table including information defining an order in which the data fragments are stored.

Claim 35 (new): A method as defined in Claim 34, further comprising storing the at least one sequence table adjacent to the logical memory management boundary.